



650.00547  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

AKIHIRO NAGATA et al

Serial No. 09/008,675

Filed January 16, 1998

) METHOD AND SYSTEM FOR  
) TREATING A POWER TRANS-  
) MISSION BELT/BELT SLEEVE  
)  
) Group Art Unit 1724  
)  
) Examiner R. Hopkins

**APPELLANT'S REPLY BRIEF UNDER 37 C.F.R. §1.193**

Assistant Commissioner for Patents  
Washington, D.C. 20231  
Sir:

This is a reply to the Examiner's Answer mailed on August 3, 2000 in the  
above matter.

**Issue No. 1**

In the bridging paragraph beginning on page 8 of the Examiner's Answer,  
the Examiner notes accurately that the pressure wrap in Perkins is described to be option-  
ally made from nylon. The Examiner then concludes

---

37 CFR 1.8  
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in  
an envelope addressed to: Assistant Commissioner of Patents, Washington, D.C. 20231 on 8-25-2000.

T. Craine  
Signature  
T. Craine  
Typed or Printed Name of Person Signing

"[t]herefore, since nylon, a synthetic resin film, is wrapped around the surface of the belt and the belt with the nylon wrap is vulcanized, then both method claim 1 and apparatus claim 14 are deemed to be clearly anticipated by Perkins."

In concluding the first full paragraph on page 9 of the Examiner's Answer, the Examiner states "Examiner respectfully submits the fact that appellant's specification identifies nylon as a synthetic resin film inherently means that the film also is vapor impervious."

Clarification is appropriate at this time as to the general definition of a "film". Appellant is enclosing herewith a copy of the page from the *Random House Webster's College Dictionary* with the definition of "film" thereon. As can be seen from the definition of film, there is nothing inherent, regardless of the material, that equates "film" with "vapor-impervious". Appellant has throughout the specification and claims characterized the film as "vapor-impervious".

Perkins does not anywhere in his disclosure identify the nylon wrap material as a "vapor impervious" film. The Board can take notice of the fact that nylon material is often woven, as in hosiery, to increase its mechanical strength. In this woven state it is not vapor-impervious. For a pressure wrap as used in the Perkins environment, a woven material may logically be a more practical pressure applying structure than a "vapor-impervious film", which is neither taught nor suggested in Perkins.

In support of his position, the Examiner for the first time cites, for the first time provides copies of, and for first time relies on U.S. Patent No. 4,435,351 (Gilmore)

and Korean Reference No. 90-6987 (Korea '987 - Abstract only). Not only is it inappropriate to raise these references for the first time in the Examiner's Answer, it is also inappropriate to use them as the Examiner has in an attempt to interpret Perkins.

It is elementary that for a rejection under 35 U.S.C. §102 to be appropriate, the relied upon teachings must reside within the four corners of a single document, and in this case Perkins. Using the separate Gilmore and Korea '987 documents relating to pipe formation to interpret Perkins is not appropriate.

Even using the two new references cited by the Examiner, the Examiner's position is not supported. Aside from the fact that both newly cited references are directed to pipe or hose formation, they do not alone or collectively stand for what the Examiner states. The passage in Gilmore referenced by the Examiner briefly describes a vulcanization preparation in which hose components are built upon a mandrel, as described beginning in column 1, line 48 of Gilmore. It is then described that a "cover layer of elastomeric material is applied" after which a cure tape made of wetted nylon is applied. Gilmore does not describe the wetted nylon tape as being vapor impervious. It is possible that the cover layer underlying the wetted nylon tape, and not the nylon tape, is vapor impervious.

The Abstract of Korea '987 is at best sketchy. There is disclosure of a "heat contracting tape". The Examiner assumes from the Abstract that the tape is vapor impervious. However, in the first paragraph of the Abstract, the tape is characterized as containing a "porous Teflon film and bleeder".

In short, the Perkins reference does not teach a vapor impervious film as claimed. The newly cited prior art, which is not even related to power transmission belt formation and should not be applied in interpreting Perkins, does not teach what the Examiner says it does.

In conclusion, Perkins does not disclose a vapor impervious film as claimed, either expressly or inherently.

In the last full paragraph on page 9 of the Examiner's Answer, the Examiner acknowledges that cotton wrap would not be vapor impervious and that the use of the airtight heat resistant bag or envelope proposed by Perkins would logically be used only with cotton as opposed to a nylon pressure wrap. This is reading well beyond the teachings of Perkins to come to such a conclusion. Just as logically, if not more logically, one would assume that if the described nylon pressure wrap would be vapor impervious and function as well as a cotton wrap, one would eliminate the need to use the heat resistant bag or envelope by using the nylon wrap. The use of a cotton wrap would have no apparent advantages and would introduce the requirement to perform an additional step and use an additional element, that being the heat resistant bag or envelope.

## **Issue No. 2**

The Examiner states in the paragraph bridging pages 10 and 11 that "it would have been obvious to someone of ordinary skill in the art at the time of the invention to extend the vapor impervious film wrapping of Perkins to extend over the edges of belt

sleeve in order to ensure edges of the belt are not damaged during vulcanization by the vapor in the pretreatment chamber." However, if Perkins was using the pressure wrap to provide a vapor impervious film, Perkins may have logically extended the film over the edges so as not to leave the edges exposed.

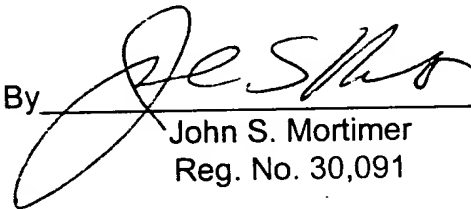
**Conclusion**

It is respectfully requested that the Examiner's final rejection of claims 1-10, 13-17, and 21-26 be reversed.

Respectfully submitted,

WOOD, PHILLIPS, VAN SANTEN,  
CLARK & MORTIMER

By

  
John S. Mortimer  
Reg. No. 30,091

Aug 24, 2000

500 West Madison Street  
Suite 3800  
Chicago, IL 60661-2511  
(312) 876-1800



# **RANDOM HOUSE WEBSTER'S COLLEGE DICTIONARY**

---

Random House  
New York

11. to become covered by a film. 12. to direct, make, or otherwise engage in the production of motion pictures. [bef. 1000: ME *filmen*, OE *filmen* membrane] —film/like/, *adj.*

**film-dom** (fîl'm/dam), *n.* the motion-picture industry. [1910-15]

**film-go-er** (fîl'm/gô'ar), *n.* MOVIEGOER.

**film-ic** (fîl'mîk), *adj.* 1. pertaining to or characteristic of motion pictures. 2. containing characteristics resembling those of motion pictures. [1920-30] —film/i-cal-ly, *adv.*

**film-maker** (fîl'm/māk'er), *n.* a person who directs or produces motion pictures. [1905-10] —film/māk'ing, *n.*

**film/ noir**, *n.* 1. a motion picture genre marked by grim urban settings, cynical, bleakly pessimistic characters, and starkly shadowed photography. 2. a motion picture in this genre. [1955-60; *F* + *noir* black film]

**film-og-ra-phy** (fîl mŏg'rā fē), *n., pl. -phies.* a listing of motion pictures by actor, director, or the like, usu. including facts about the production of each film. [1960-65: FILM + (BIBL)OGRAPHY]

**film-strip** (fîl'm/strip'), *n.* a length of film containing a series of related transparencies for projection on a screen. [1925-30]

**film-y** (fîl'mē), *adj.* **film-i-er**, **film-i-est**. 1. thin and light: fine and gauzy. 2. hazy or misty; glazed. [1595-1605] —film/i-ly, *adv.* —film/i-ness, *n.*

**Fil-o-fax** (fî'lŏ faks'), *Trademark.* a datebook also containing space for addresses, a calendar, and specialized inserts.

**fi-lose** (fî'lŏsē), *adj.* 1. threadlike. 2. ending in a threadlike process. [1815-25; *< L* *fil(um)* a thread + *-ose*']

**fil** (fîl), *n., pl. fils.* 1. a monetary unit of Bahrain, Iraq, Jordan, and Kuwait, equal to 1/100 of a dinar. 2. a monetary unit of the United Arab Emirates, equal to 1/100 of a dirham. 3. a monetary unit of the Republic of Yemen, equal to 1/100 of a rial. Often, *fil*. [1885-90; *< A'* *fils* (fēs), *n., pl. fils.* French: son: often used after a name with the meaning of *jr.*, as in *Dumas fils*. Compare *fæx*.]

**fil-ter** (fîl'tar), *n.* 1. any substance, as cloth, paper, porous porcelain, or charcoal, through which liquid or gas is passed to remove suspended impurities or to recover solids. 2. any device, as a tank or tube, containing such a substance for filtering. 3. any of various analogous devices, as for removing dust from air or impurities from tobacco smoke. 4. *Informal.* a filter-tipped cigarette or cigar. 5. a screen of dyed gelatin or glass used in photography to control the rendering of color or to diminish the intensity of light. 6. an electronic circuit or device that passes certain frequencies and blocks others. —*v.t.* 7. to remove by the action of a filter. 8. to act as a filter for: slow or partially obstruct the passage of. 9. to pass through or slip through a filter. —*v.i.* 10. to pass or slip through slowly, as through an obstruction or a filter; penetrate. [1375-1425: late ME *filtrē* *< ML* *filtrum* felt, piece of felt used to strain liquids *< Gmc*; see *rear*] —fil'ter-er, *n.*

**fil-ter-a-ble** (fîl'tar-ə bəl) also **filtrable**, *adj.* 1. capable of being filtered. 2. capable of passing through bacteria-retaining filters. [1905-10] —fil'ter-a-bil'i-ty, *fil'ter-a-ble-ness*, *n.*

**fil'ter-a-ble vi/rus**, *n.* a virus small enough to pass through a bacteria-retaining filter: an informal indicator of size, as recent filters can hold back the smallest viruses. [1910-15]

**fil'ter bed**, *n.* a pond or tank having a false bottom covered with sand and serving to filter river or pond waters. [1870-75]

**fil'ter feed'er**, *n.* any aquatic animal, as a sponge or clam, that feeds by straining food particles and small organisms from the water.

**fil'ter tip**, *n.* 1. a mouthpiece for a cigarette or cigar having means of filtering the smoke. 2. a cigarette or cigar having such a mouthpiece. [1930-35] —fil'ter-tipped', *adj.*

**filth** (fîlth), *n.* 1. offensive or disgusting dirt or refuse. 2. foul conduct. 3. moral impurity, corruption, or obscenity. 4. vulgar or obscene language or thought. [bef. 1000: ME OE *filth*. See *form*, *th*.] —filth/i-ly, *adv.* **filth-i-er**, **filth-i-est**, *adv.* —*adj.* 1. foul with dirt or refuse. 2. characterized by, or having the nature of, filth: disgustingly or completely dirty. 3. vulgar or obscene: *filthy language*. 3. contemptibly offensive, vile, or objectionable. 4. abundantly supplied (often followed by *with*): *They're filthy with money.* —*adv.* **Idiom.** 5. *filthy rich*: extremely wealthy. [1350-1400] —filth/i-ly, *adv.* —filth/i-ness, *n.*

**fil'thy lu/cra**, *n.* **Facetious.** money, as contrasted with nonmaterialistic rewards. [1520-30]

**fil-trate** (fîl'trāt), *v., -trat-ed, -trat-ing, n.* —*v.t., v.i.* 1. to filter. —*v.i.* 2. liquid that has been passed through a filter. [1605-15; *< ML* *filtratus*, ptp. of *filtrare* to filter] —fil'trat-a-ble, *adj.* —fil'tra'tion, *n.*

**fi-lum** (fî'lŏm), *n., pl. -la* (lŏ), *a* threadlike structure: filament. [1855-60; *< L*: a thread, filament, fiber]

**fim-bri-a** (fîm'bri-ə), *n., pl. -bri-ae* (brē-ē'). *Biol.* a fringe or fringe border, as around a petal, orifice, or duct. [1745-55; *< NL* *fimbriae* (pl.) border, fringe] —fim'bri-al, *adj.*

**fim-bri-ate** (fîm'bri-ē it', -āt') also **fim-bri-at-ed** (-ē'tēd), *adj.* having a fimbria or fimbriae. [1480-90; *< L*] —fim'bri-a'tion, *n.*

**fin'** (fîn), *n., v., finned, fin-nig.* —*n.* 1. a membranous, winglike paddlelike organ attached to any of various parts of the body of certain aquatic animals. 2. a winglike appendage to a hull, as one for controlling the dive of a submarine. 3. any of certain small, stabilizing structures on an aircraft, designed to increase directional stability. 4. any of a number of standing ridges, as on a radiator or engine cylinder, intended to maximize heat transfer to the surrounding air. (on an automobile body) a fin-shaped ornamental part, esp. on a fender (tail fin). 6. *Usu., fins.* *rumple* (def. 2). —*v.t.* 7. to provide with fins.

**fin.** —*v.i.* 8. to lash the water  
—*fin/less*, *adj.* —*fin/like'*, *ad-*  
**fin.** (fin), *n.* *Slang.* a five-  
**(f)** a five-pound note < *V*  
*(the five)*  
**fin.** 1. Finland. 2. Finnish.  
**fin.** 1. finance. 2. financial. 3  
**fin-a-ble** or **fine-a-ble** (fī'n-  
**able** (fī nā'əbəl), *n.*, *adj.*  
—*fin-a-ble* (fī nā'əbəl), *n.*, *adj.*  
a fortune. 2. to get or achieve  
population. 3. to finagle an invi-  
**land**; scheme. [1925-30. *Am.*  
**fin** to shirk, renege. —*fin-*  
**fin** (fī'n/), *adj.* 1. pertaining  
order, or time. 2. ultimate; fi-  
**fin** decision. 3. constituting  
**fin** law, precluding further con-  
**fin** decree. —*n.* 6. Something  
a. the last and decisive gas-  
sports. b. the last, decisive con-  
study. [1300-50; ME < L *fī-*  
**fin** *cut'*, *n.* the final edit-  
tor and producer. Compar-  
**fin-ale** (fī nāl'ē, -nāl'ē), *n.*  
a concert, opera, or compo-  
sition. 2. the final part of a  
performance, course of proceed-  
**fin** Four', *n.* the four re-  
of the U.S. college basketball  
**fin** list (fī'n/ līst), *n.* a p-  
round of a contest, as in a  
[1900]  
**fin-ity** (fī nāl' ētē), *n.*, *p*  
**fin** final. 2. something that :  
**fin** final (fī'n/ fīn'), *n.*, *adj.*  
[1920-25] —*fī'nā-līzā-tion*,  
**fin** -ly (fī'n/ lē), *adv.* 1. a  
manner, conclusively or de-  
—*fin* three *mes*, *he finally* p-  
**fin** Solution', *n.* the A  
Europe during the Third Re-  
[1910]  
**fin** (fī nāns', fī'nāns-  
management of revenues, ex-  
penses of banking and invest-  
ment of a company, individual  
money or capital; obtain m-  
capital needed for finan-  
—*fin*, *MF* finance, det. of  
**fin** —*fin*-*ance*-*a-ble* *adj*  
**fin** company, *n.* a  
firm of financing as lending  
**fin** -cial (fī nān'shəl, fī-  
nāns', pecuniary. 2. of or  
relating with money and  
—*fin* FINANCIAL, FISCAL, *v*  
concerned with money FINA-  
transactions of some size or  
—*fin* is used esp. in connection  
organization: the *fin* of  
—*fin* as such: The *fin* is  
—*fin* as used in making a  
**fin** -cler (fī'nāns' ēr'), *n.* a  
—*fin* large financial  
—*fin* 2. to finance. —*n.* 3  
—*fin* -*ter*'  
**fin** -cing (fī nāns' ſing, fī-  
funds for an enterprise  
**fin** (fīn'bāk'), *n.* an  
—*fin* phylus, having a  
**fin** whale', *fin* whale  
**fin** (fīnch), *n.* any of va-  
—*fin* Fringillidae, and  
—*fin* for eating seeds. [15-  
**fin** (fīn'd), *v.* found, find-  
—*fin* to find a *fin*  
—*fin* to find a *fin*  
—*fin* to discover or per-  
—*fin* 5. to gain or re-  
—*fin* by study or calcu-  
—*fin* 8. to become as-  
—*fin* or place. 9. to dis-  
—*fin* I hope this *fin*  
—*fin* to find a *fin*  
—*fin* indictment, verdict  
—*fin* judicial inquiry  
—*fin* to discover, expose  
—*fin* (someone)  
—*fin* or discover:  
—*fin* discovery. —*fin*  
—*fin* genuine interests  
—*fin* ON *fin*. Co.